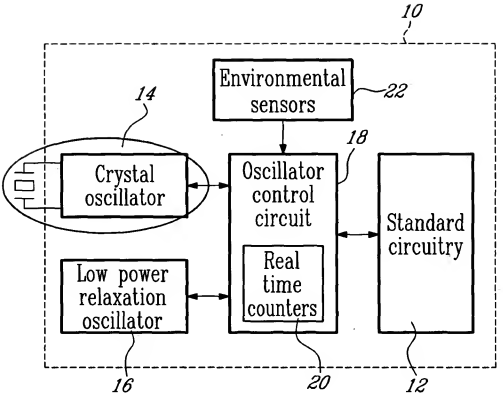
10
Environmental sensors
22
14
18
Crystal oscillator
Oscillator control circuit
Standard circuitry
Real time counters
Low power relaxation oscillator
16
20
12

Fig. 1

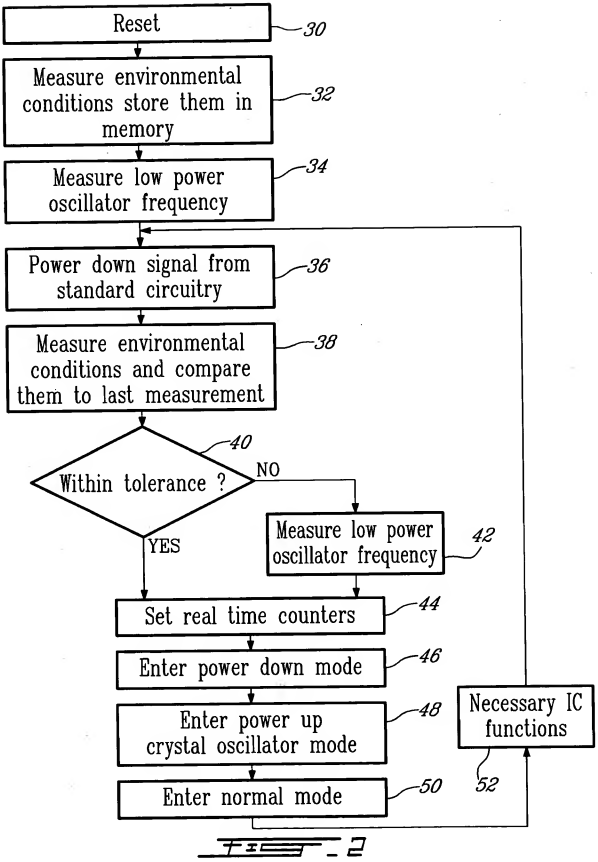
Reset
30
Measure environmental conditions store them in memory
32
Measure low power oscillator frequency
34
Power down signal from standard circuitry
36
Measure environmental conditions and compare them to last measurement
38
40
Within tolerance ?
NO
YES
Measure low power oscillator frequency
42
Set real time counters
44
Enter power down mode
46
Enter power up crystal oscillator mode
48
Enter normal mode
50
Necessary IC functions
52

Fig. 2

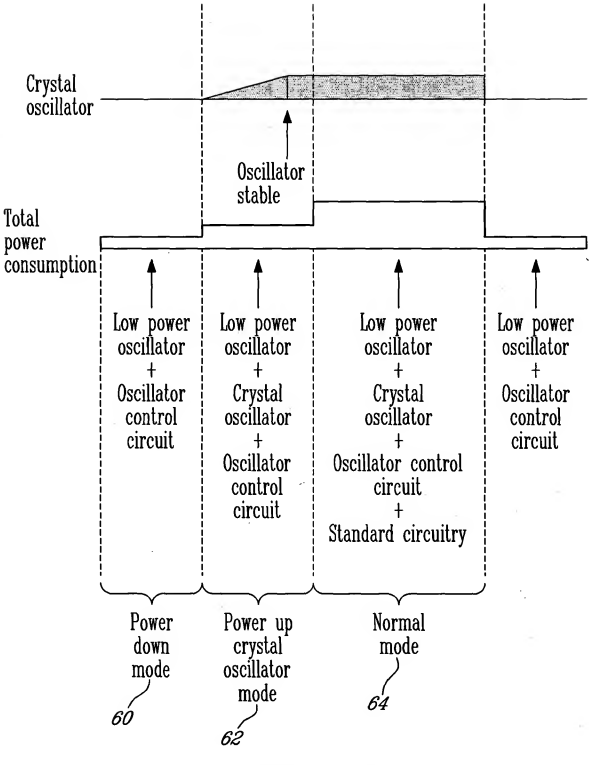
Crystal oscillator
Oscillator stable
Total power consumption
Low power oscillator + Oscillator control circuit
Low power oscillator + Crystal oscillator + Oscillator control circuit
Low power oscillator + Crystal oscillator + Oscillator control circuit + Standard circuitry
Low power oscillator + Oscillator control circuit
Power down mode
60
Power up crystal oscillator mode
62
Normal mode
64

Fig. 3